

Pretoria, Oct. 11, 1954

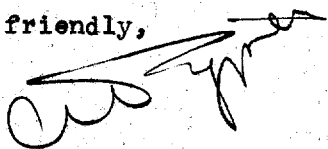
Dear Dr. Lederberg,

From the J. Bact. , 68, p. 258 I see that you use oil chambers.

I am a great admirer of Langeron who introduced me to the oil chamber technique, but I must admit it has never seemed to work well in my hands. I tried various techniques, always with the end in view to get cinema pictures of dividing bacterial cells. I never could convince myself that breathing was possible through oil, as the oil chamber people say. I am sure my bacteria did not die from the effect of the light, it was always lack of oxygen, or anyhow some respiratory factor.

I see of course that your technique, which is fascinating in its ingenious simplicity, makes it possible for the bacteria to breathe through a very thin layer of oil, without <sup>a</sup> ~~the~~ coverglass. As I have always worked with oil-immersion objectives, I had to put on a coverglass and it is possible that the pathway of the respiratory gases became too long. I shall go and try your method, but then there is one point that is not clear to me. At the top of p.259 you write 1 "and incubating the slides in a container of oil, e.g. a staining dish". This "container of oil" puzzles me. Is it, please forgive my suggestion if it is out of place, possible that the words "of oil" should not have been there? I would esteem it a great favour if you would tell me where I am wrong. And if you have time to write me a short note of explanation, would you mind adding a reprint? The journal is not always accessible. If there are no reprints available I shall just copy the note. And please excuse the verbosity of my letter, old people in their loneliness are inclined to become garrulous.

Yours very friendly,



PROFESSOR ADRIANUS PIJPER  
INSTITUTE FOR PATHOLOGY  
BEATRIX STREET, PRETORIA  
SOUTH AFRICA.